

Abstract of the Disclosure

An earth boring bit has a seal cavity that is eccentric to agitate drilling fluid and avoid mud packing. The bit body having bit legs, each having a bearing pin. A cone rotatably mounts on the bearing pin. Teeth are formed or mounted on the cone for cutting the earth formation as the bit rotates. The cone has a backface adjacent the bit leg and an entrance portion to the cavity that intersects the backface. A seal assembly is in stationary engagement with the bearing pin and sliding engagement with the cone. An annular seal gland is located between an outer diameter portion of the bearing pin and the entrance portion of the cavity. The seal gland has a width that varies so that as the cone rotates, the width of the seal gland at any point along the outer diameter portion of the bearing pin changes at least once per revolution of the cone.